

## BOILER ROOM DEMOLITION NOTES:

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1. PRIOR TO ANY EXECUTION OF WORK, CONTRACTOR SHALL MEET WITH OWNER, AND ENGINEER AND DISCUSS SCOPE OF DEMOLITION.
2. PRIOR TO ANY DEMOLITION, ISOLATION OF SYSTEMS OR SHUTDOWNS, CONTRACTOR SHALL FIELD TRACE AND VERIFY SYSTEM TO BE WORKED ON AND NOTIFY FACILITIES ENGINEERING/MAINTENANCE OF WORK TO BE PERFORMED SO AS TO AVOID ANY DETRIMENTAL SHUTDOWN OF SYSTEMS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SAFETY BY CUTTING AND MAKING SAFE ANY DEMOLITION WORK.
4. CONTRACTOR SHALL NOTIFY OWNER AND ENGINEER OF ANY SITUATIONS THAT DIFFER OR ENHANCE THE SCOPE OF WORK FROM THAT DESCRIBED IN THE DOCUMENTS.
5. CONTRACTOR SHALL COORDINATE PHASING OF THE PROJECT WITH THE OWNER FOR SHUTDOWNS, DEMOLITION AND TEMPORARY OPERATION.
6. UPON REMOVAL, ALL EQUIPMENT SHALL BE DISPOSED OF EXCEPT MAJOR ITEMS, WHICH THE CONTRACTOR SHALL INVENTORY AND SUBMIT A LIST TO THE OWNER. ALL ITEMS NOT RETAINED BY OWNER SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF PROPERLY.
7. EXISTING BREECHING AND ALL ASSOCIATED SUPPORTS, INSULATION, FANS AND ANY OTHER APPURTENANCES TO BE REMOVED.
8. ALL EXISTING PIPING WITHIN BOILER ROOM AND ALL ASSOCIATED SUPPORTS, VALVES, CONTROLS AND ANY OTHER APPURTENANCES TO BE REMOVED AND CUT AND CAP. CUT AND CAP ALL GAS PIPING AT BOILER TO THE EXTENT SHOWN.
9. EXISTING BOILERS AND ALL ASSOCIATED BURNERS, SUPPORTS, INSULATION, VALVES, PIPING, CONTROLS, PUMPS, EXPANSION TANKS, CHEMICAL SHOT FEEDERS AND ANY OTHER BOILER APPURTENANCES TO BE REMOVED.
10. RECOMMENDED PATH FOR CONTRACTOR TO REMOVE DEMOLISHED EQUIPMENT AND TO RIG IN NEW EQUIPMENT. CONTRACTOR TO REMOVE DOOR, DOOR FRAME, AND CMU TO THE LIMITS NECESSARY FOR PASSAGE OF NEW EQUIPMENT. PROVIDE TEMPORARY SHORING AS REQUIRED TO SUPPORT NEW OPENING. AFTER RIGGING IS COMPLETE REPAIR OPENING AND INSTALL EXISTING DOOR.



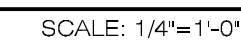
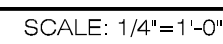
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▲	DATE	CHK	DESCRIPTION
1	10/3/2011		ADDENDUM #1

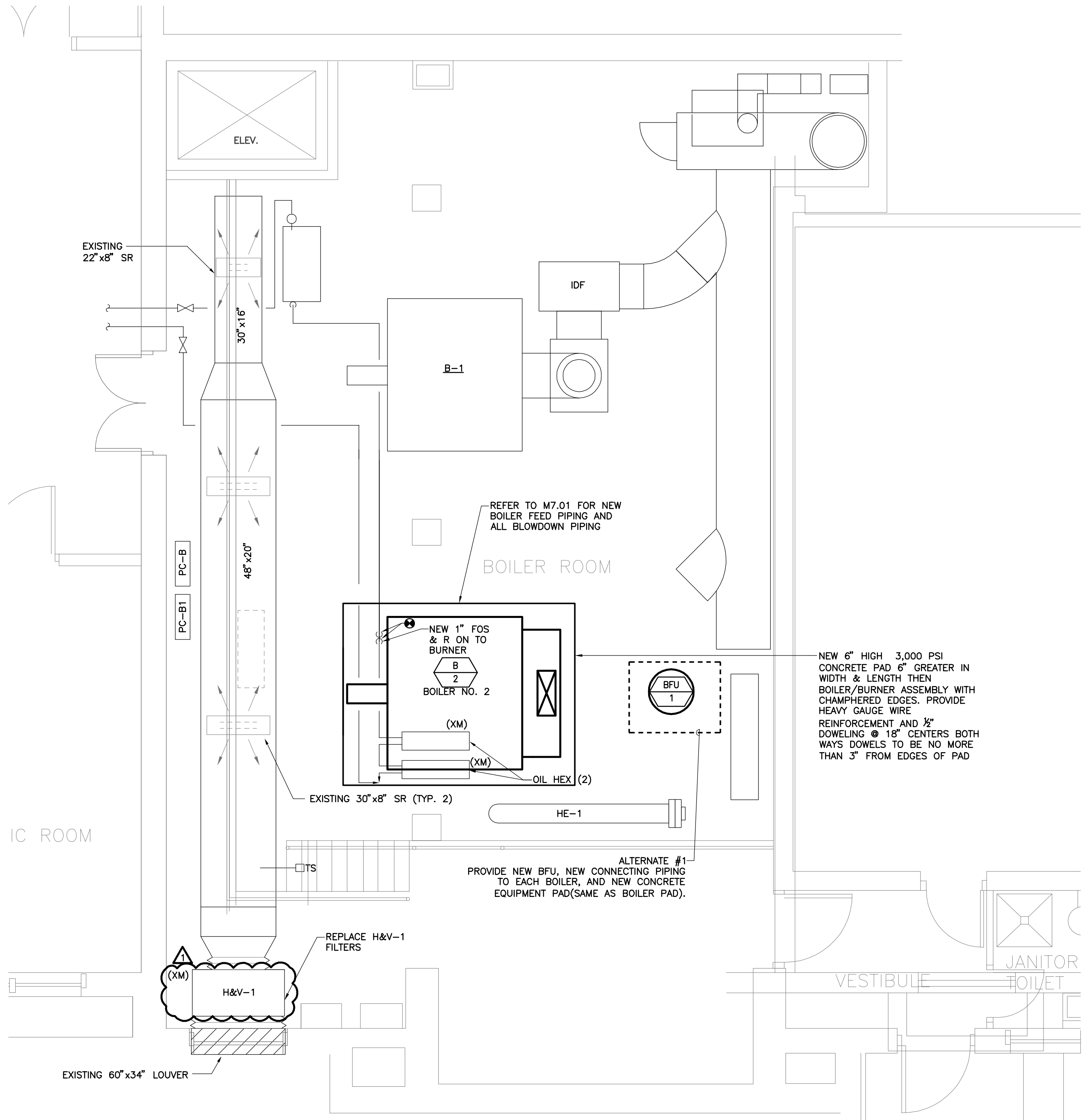
NEWTON PUBLIC  
SCHOOLS  
BOWEN/COUNTRYSIDE  
ELEMENTARY SCHOOL  
BOILER RENOVATION  
NEWTON, MA 02459

MECHANICAL  
BOWEN BOILER ROOM  
DEMOLITION  
PART PLANS



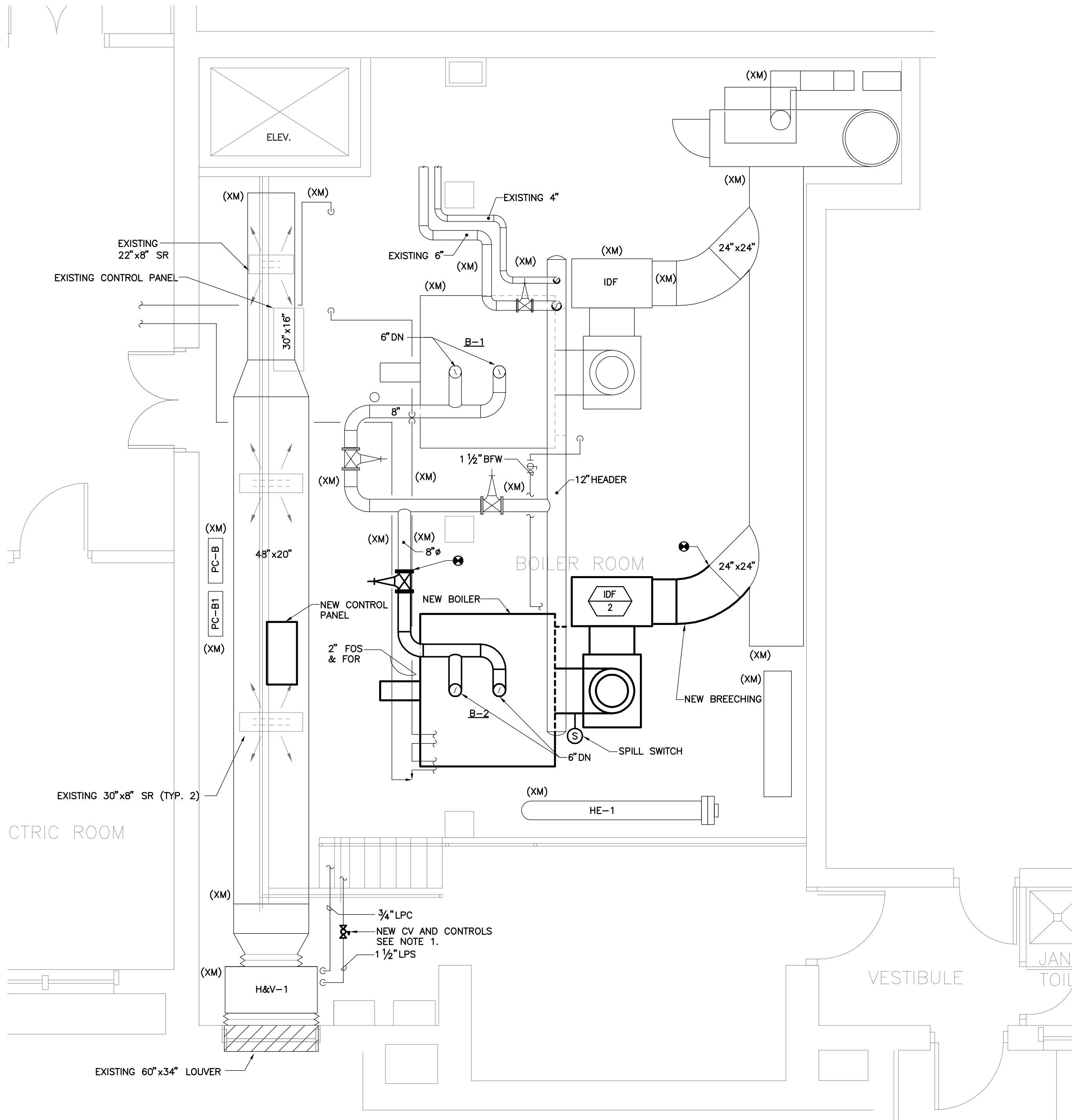
MD2.00

J:\2011\102110321 - Newton Bowen-Countryside School Boiler Vroom\Prod Sheets\20110321 M2.00 MECHANICAL BOWEN BOILER ROOM NEW WORK PART PLANS.dwg [Layout] October 03, 2011 1:15 pm kmr:zsd



MECHANICAL - BOWEN LOWER BOILER ROOM  
NEW WORK PART PLAN

SCALE: 1/4"=1'-0"

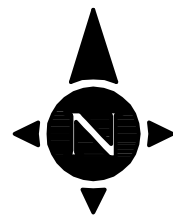


MECHANICAL - BOWEN UPPER BOILER ROOM  
NEW WORK PART PLAN

SCALE: 1/4"=1'-0"

NOTES  
1. PROVIDE NEW STEAM CONTROL VALVE AND CONTROLS TO MODULATE TO MAINTAIN 60 DEGREES(F) LAT FROM EXISTING H&V-1.

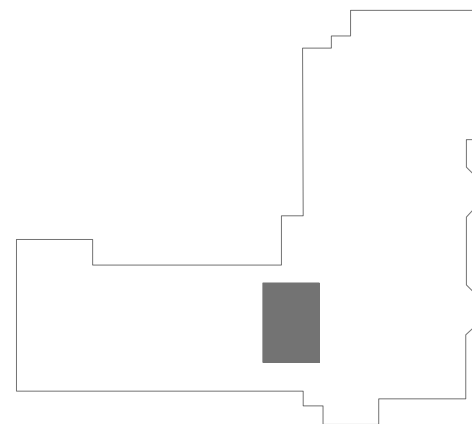
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1/4" = 1' - 0"



M2.00



KEYPLAN

RDK Engineers  
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REVISIONS

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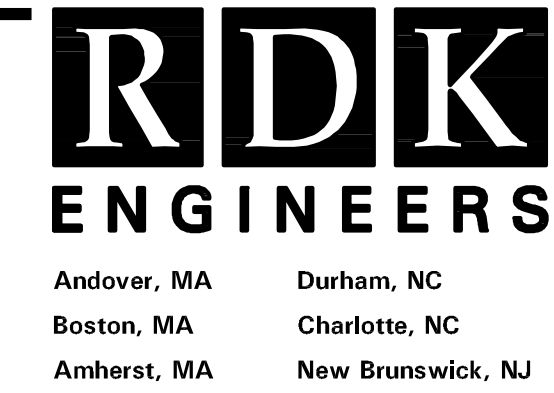
PROJECT

NUMBER  
20110321  
DATE  
09-02-11  
NEWTON PUBLIC  
SCHOOLS  
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ELEMENTARY SCHOOL  
BOILER RENOVATION  
NEWTON, MA 02459

DRAWING

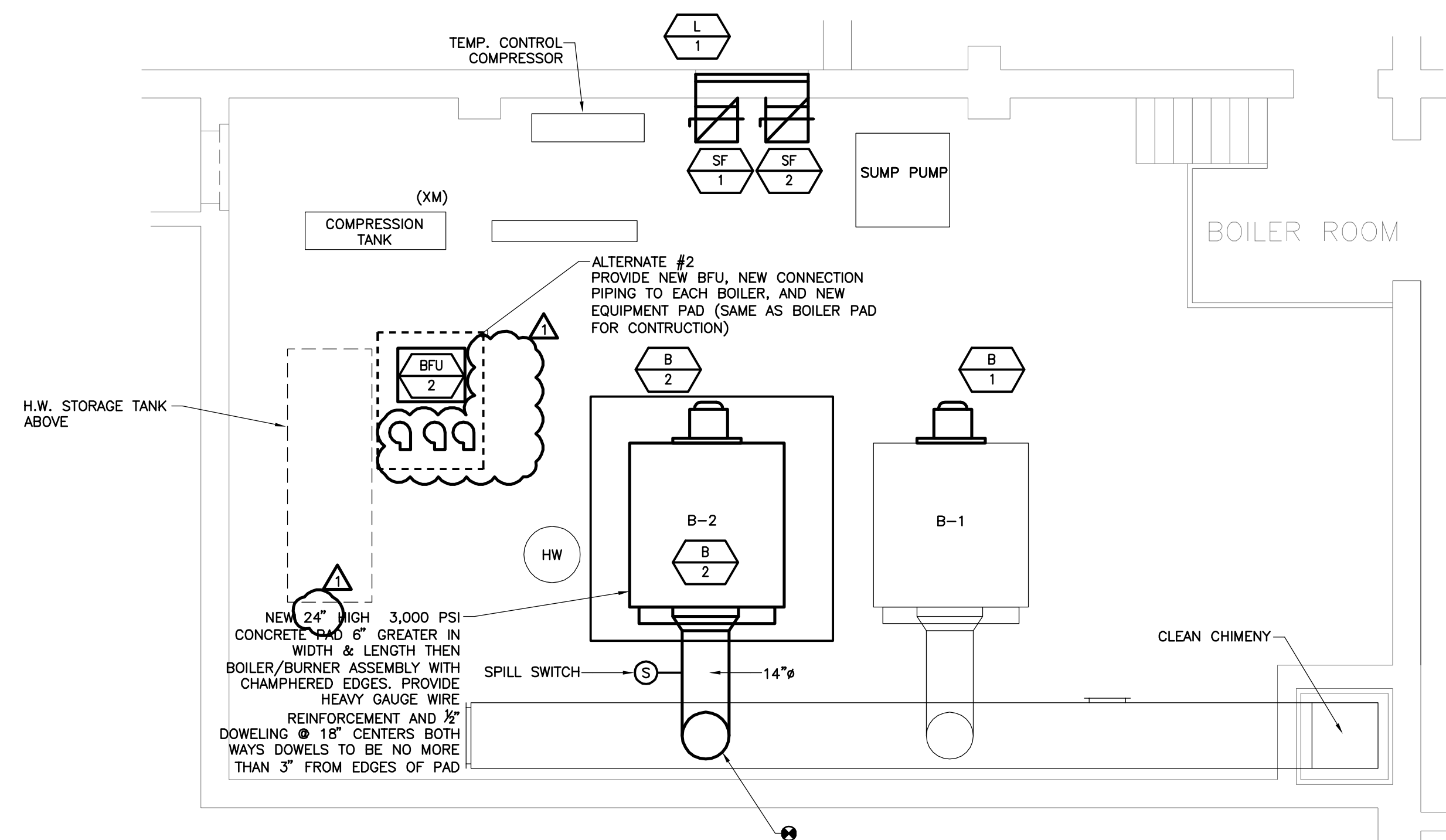
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MECHANICAL  
BOILER ROOM  
NEW WORK  
PART PLANS

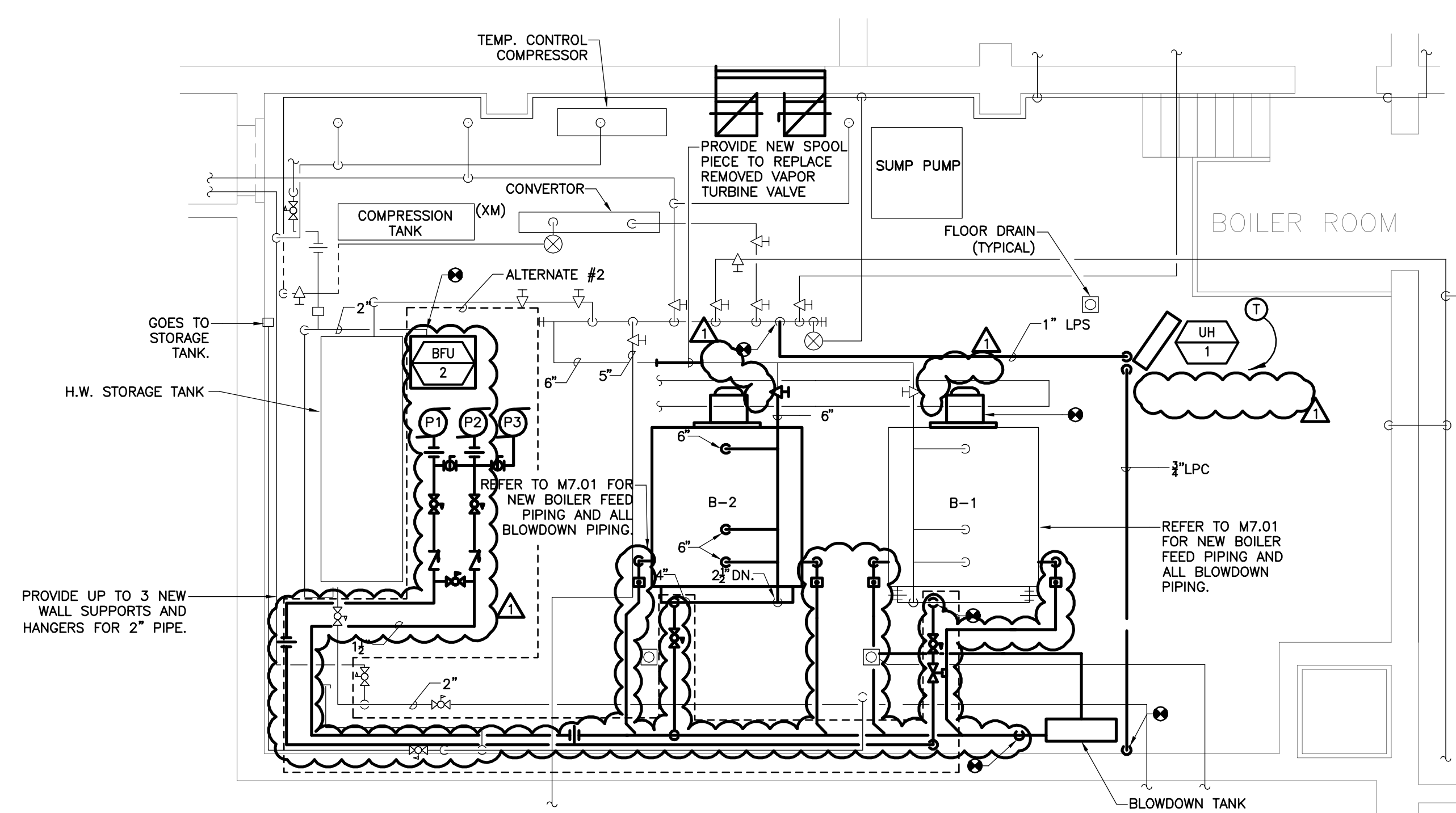


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MECHANICAL - COUNTRYSIDE BOILER ROOM BREECHING  
NEW WORK PART PLAN  
SCALE: 1/4" = 1'-0"



MECHANICAL - COUNTRYSIDE BOILER ROOM PIPING  
NEW WORK PART PLAN  
SCALE: 1/4"=1'-0"

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NEWTON PUBLIC  
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BOILER RENOVATION  
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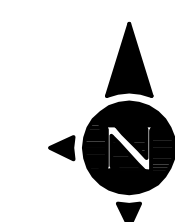
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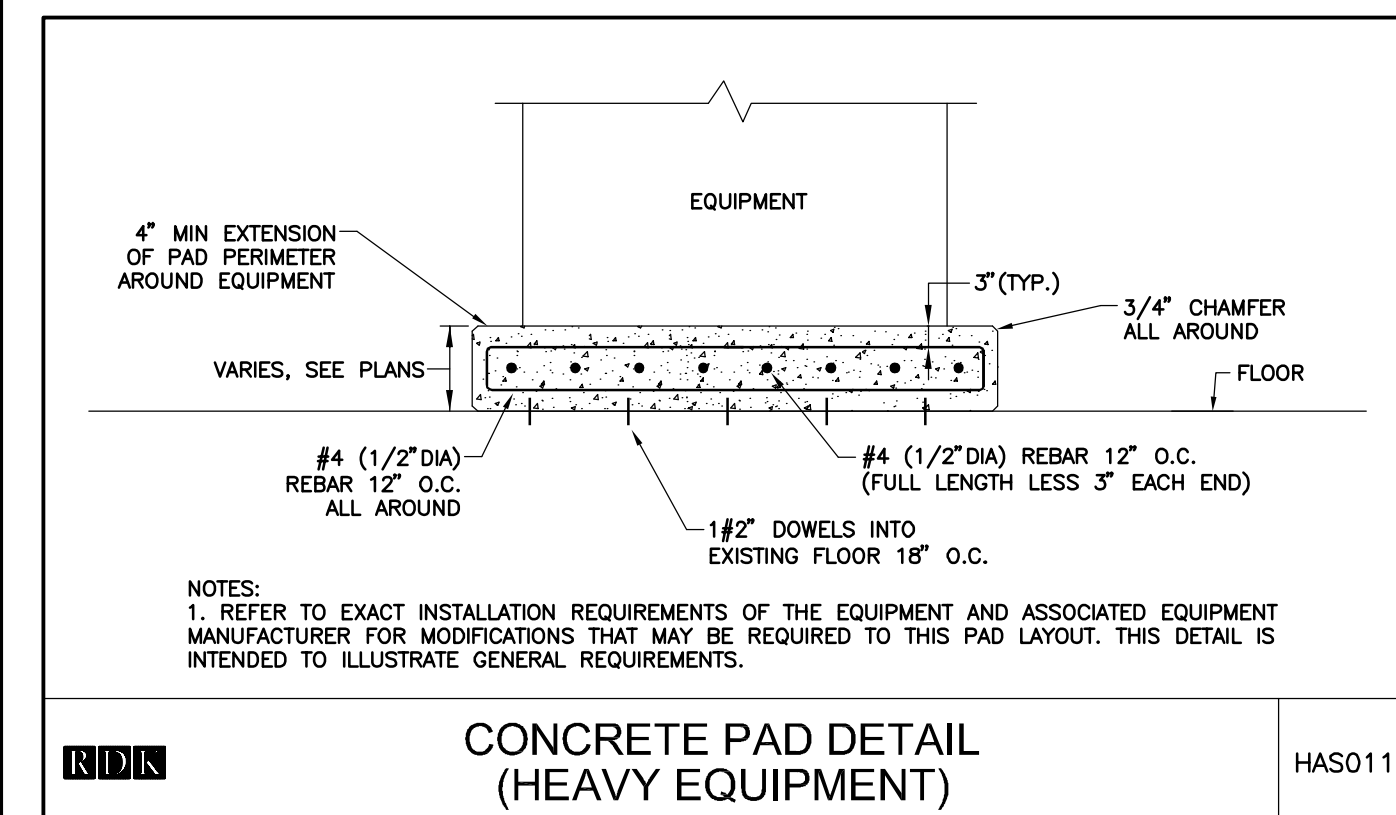
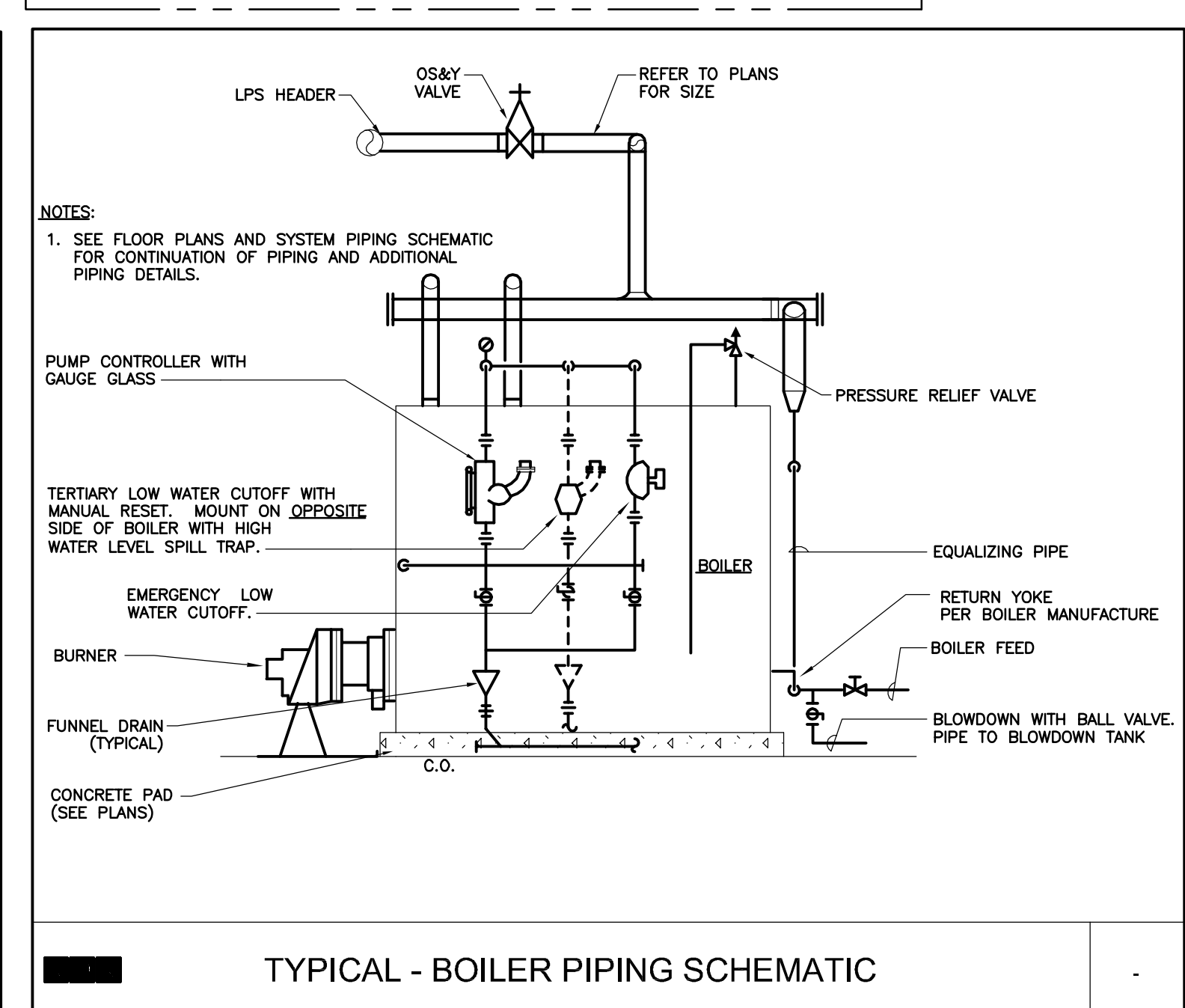
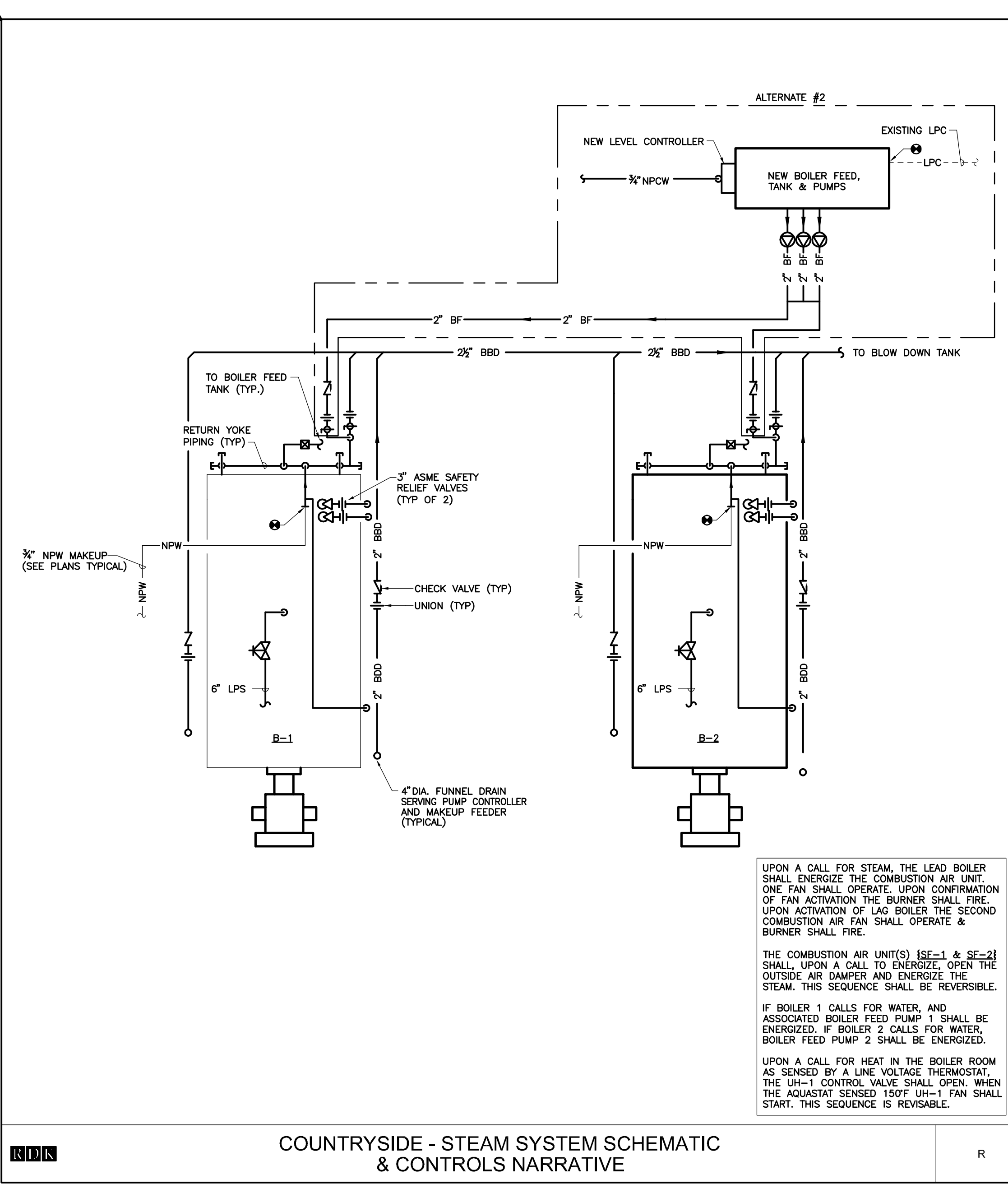
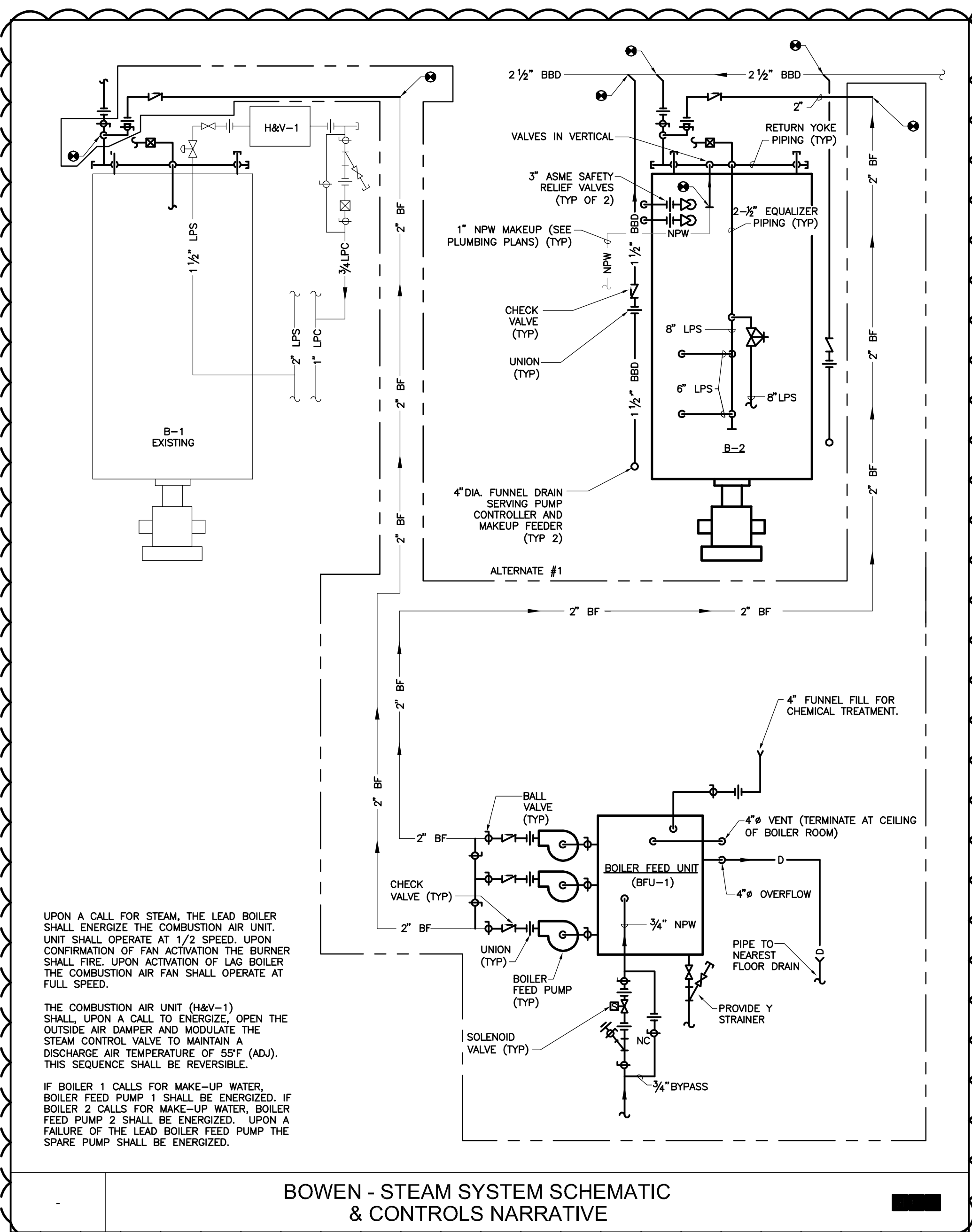
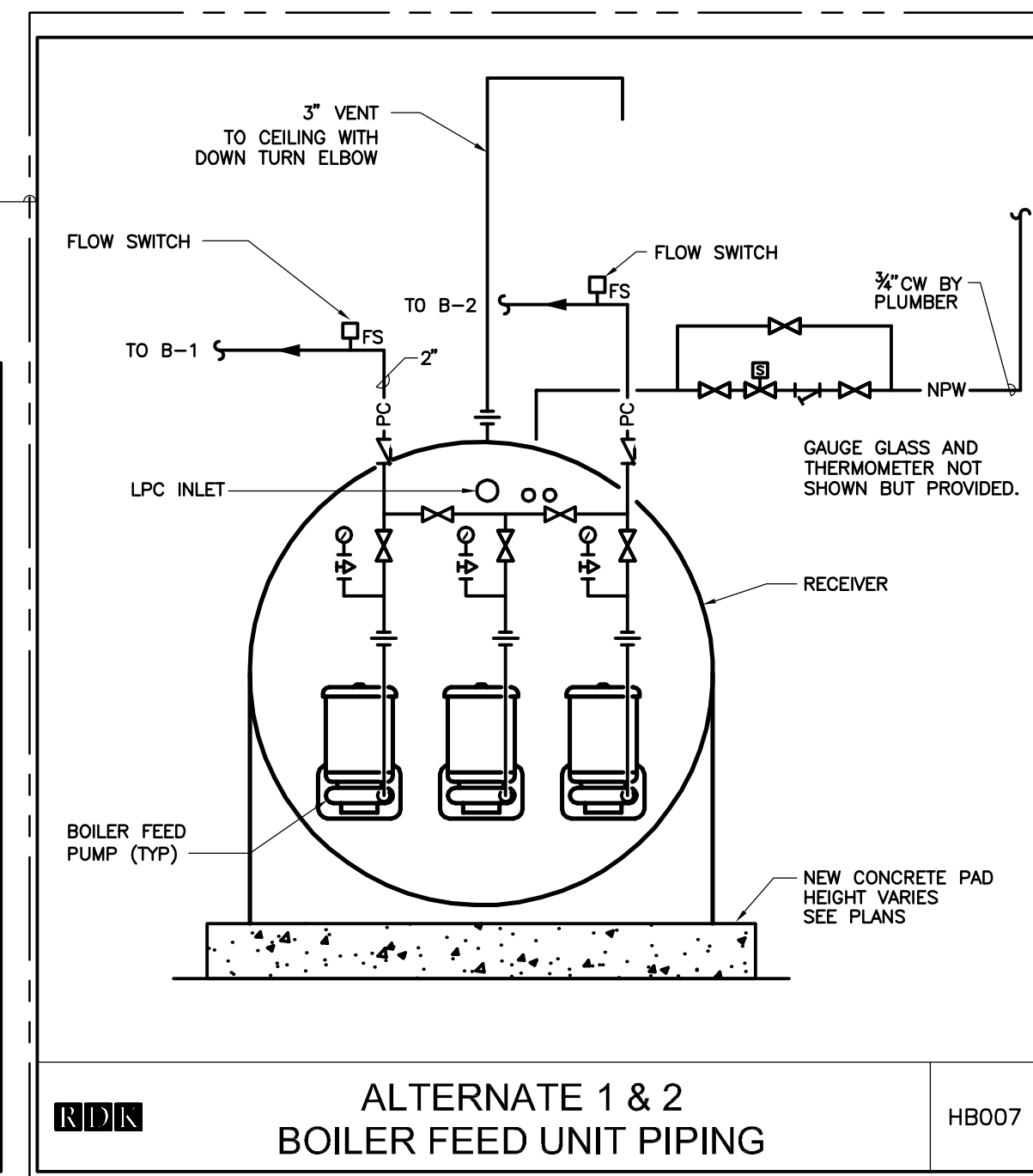
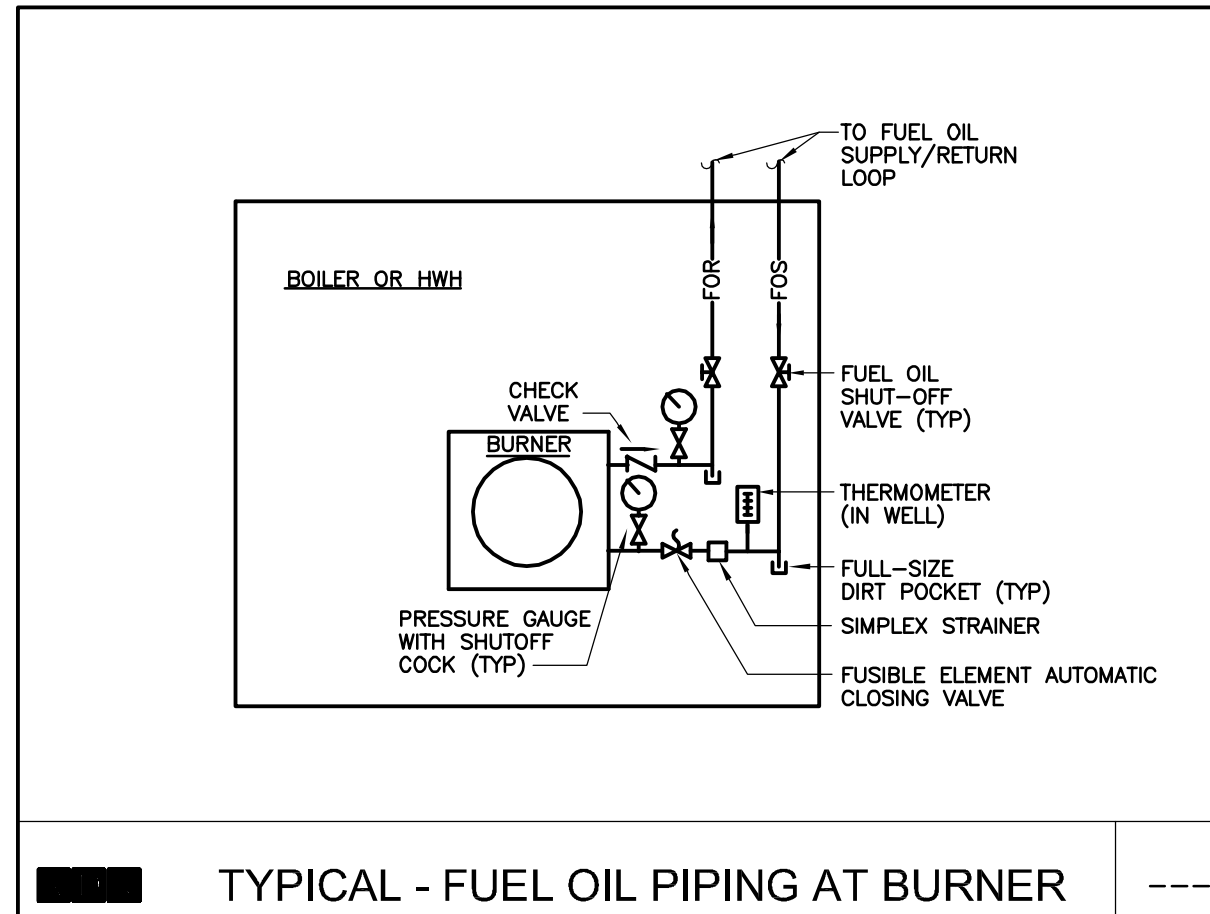
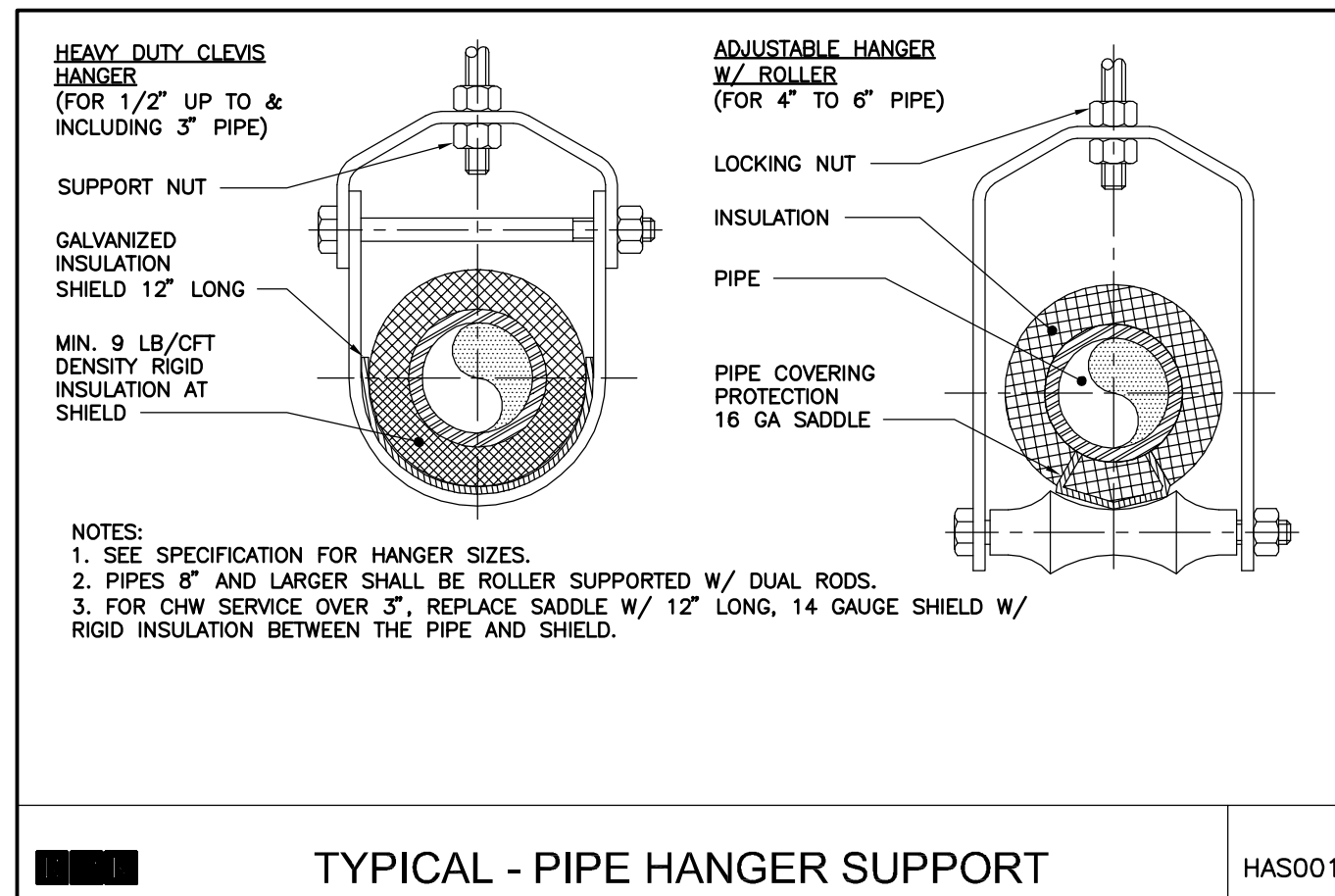
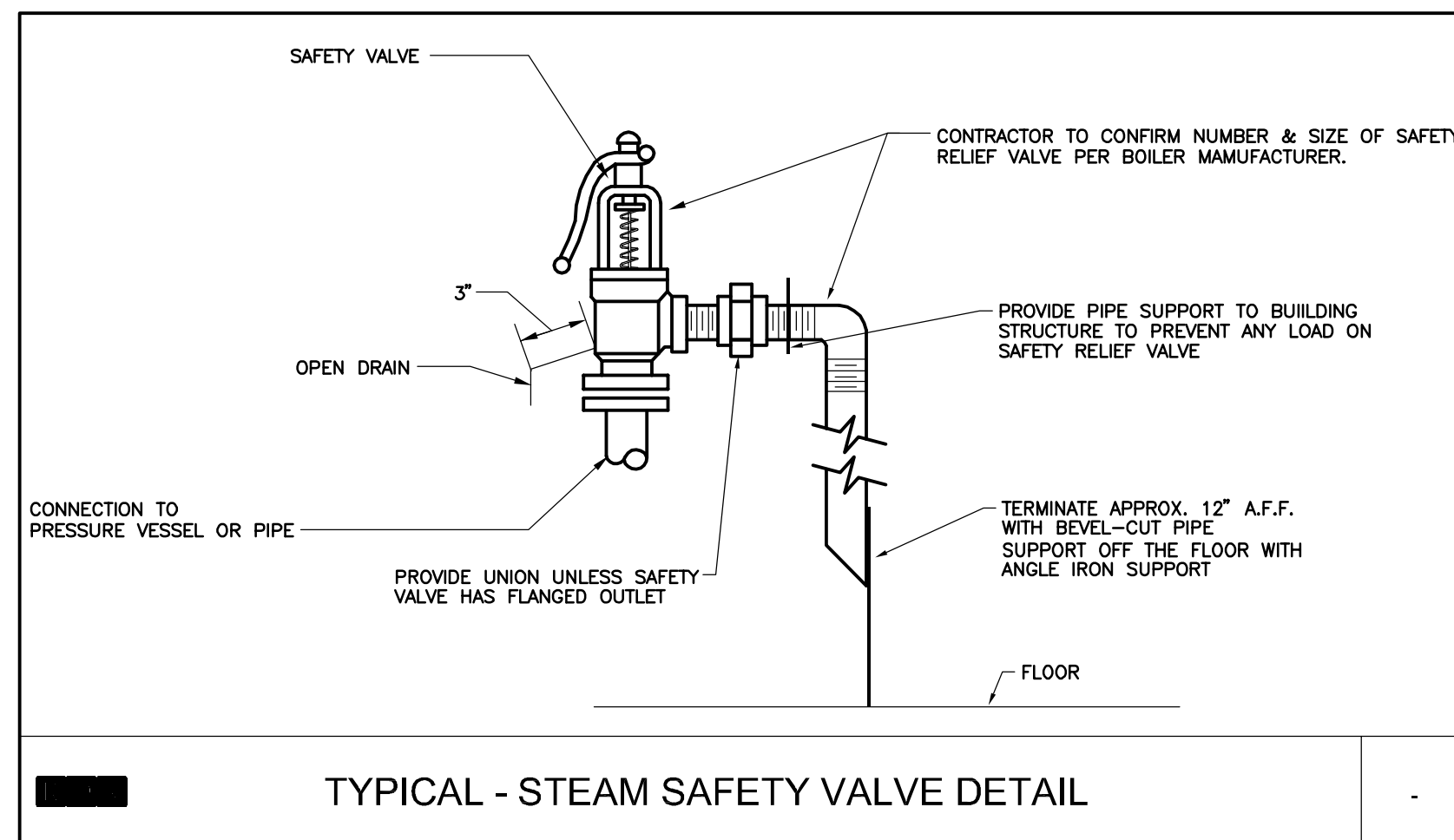
MECHANICAL  
BOILER ROOM  
NEW WORK  
PART PLAN

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09-02-2011



1/4" = 1' - 0" 

# M2.01



## REVISIONS

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1	10/3/2011		ADDENDUM #1



## PROJECT

NUMBER \_\_\_\_\_  
20110321

DATE 09-02-11

NEWTON PUBLIC  
SCHOOLS  
BOWEN/COUNTRYSIDE  
ELEMENTARY SCHOOL  
BOILER RENOVATION  
NEWTON, MA 02459

## DRAWING

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WW

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NONE

# MECHANICAL BOILER ROOM PIPING SCHEMATIC DETAILS AND CONTROLS

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09-02-2011

**M7.00**

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SEAL

**PROJECT**

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DATE 09-02-11

NEWTON PUBLIC SCHOOLS  
BOWEN/COUNTRYSIDE  
ELEMENTARY SCHOOL  
BOILER RENOVATION  
NEWTON, MA 02459

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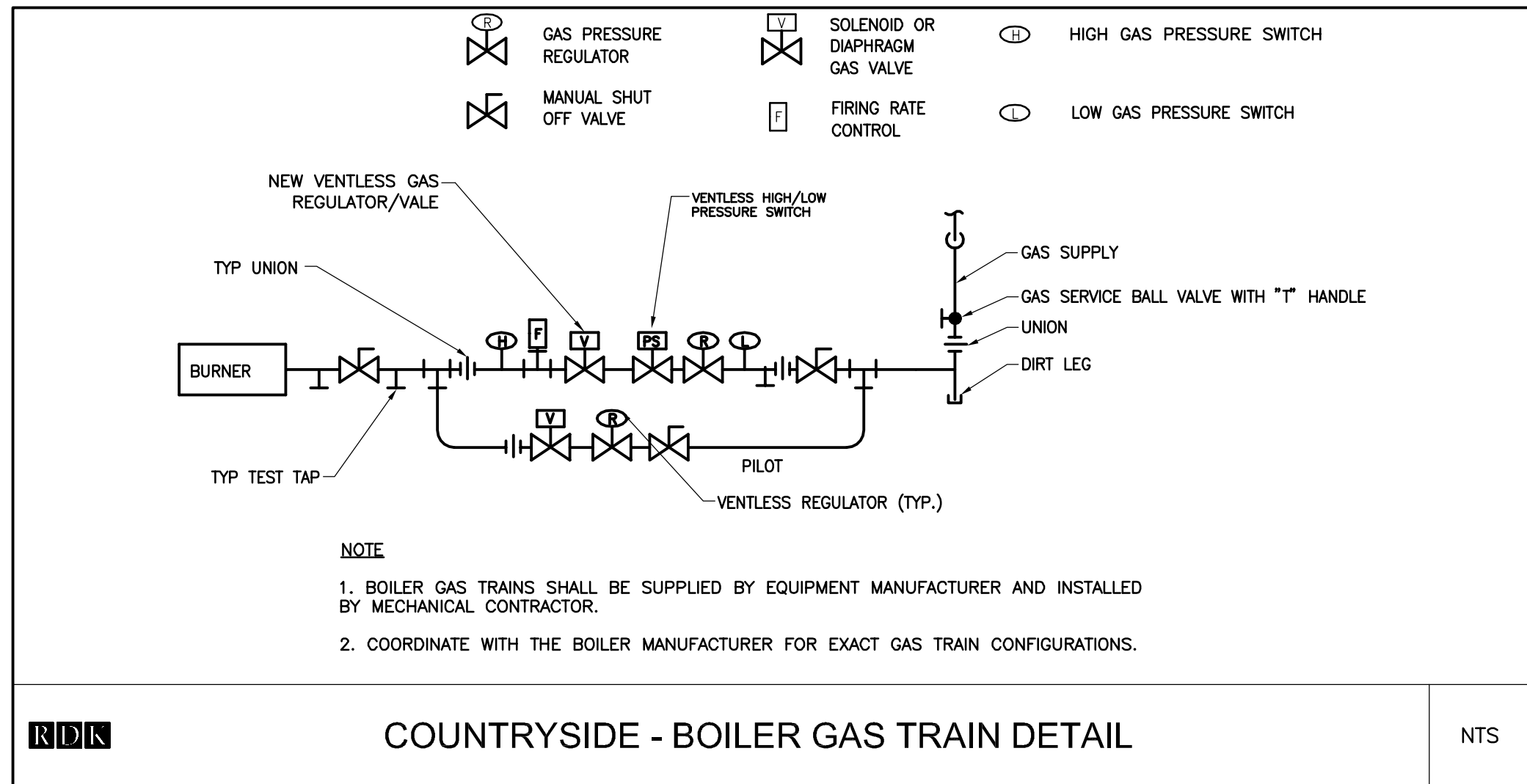
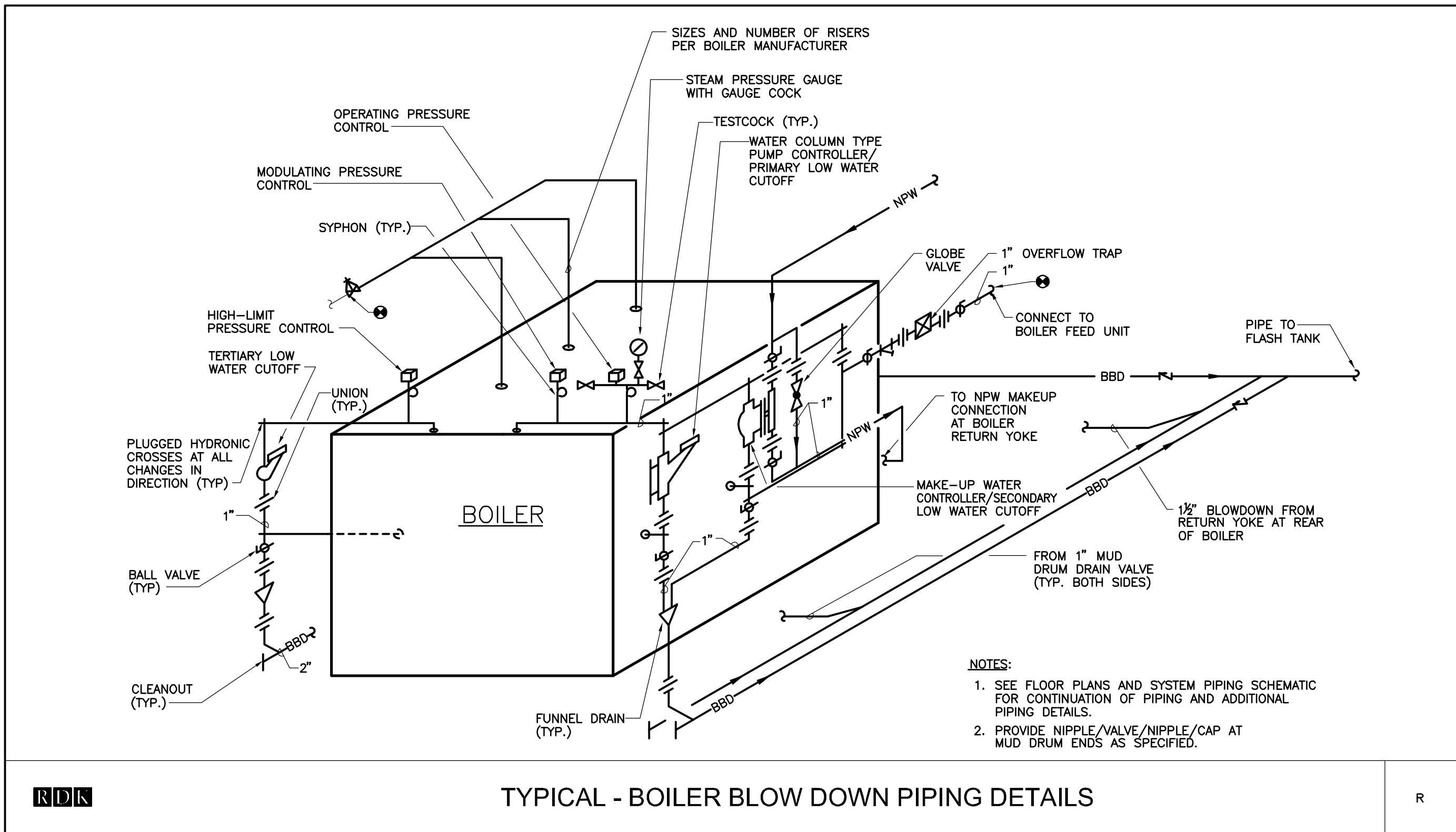
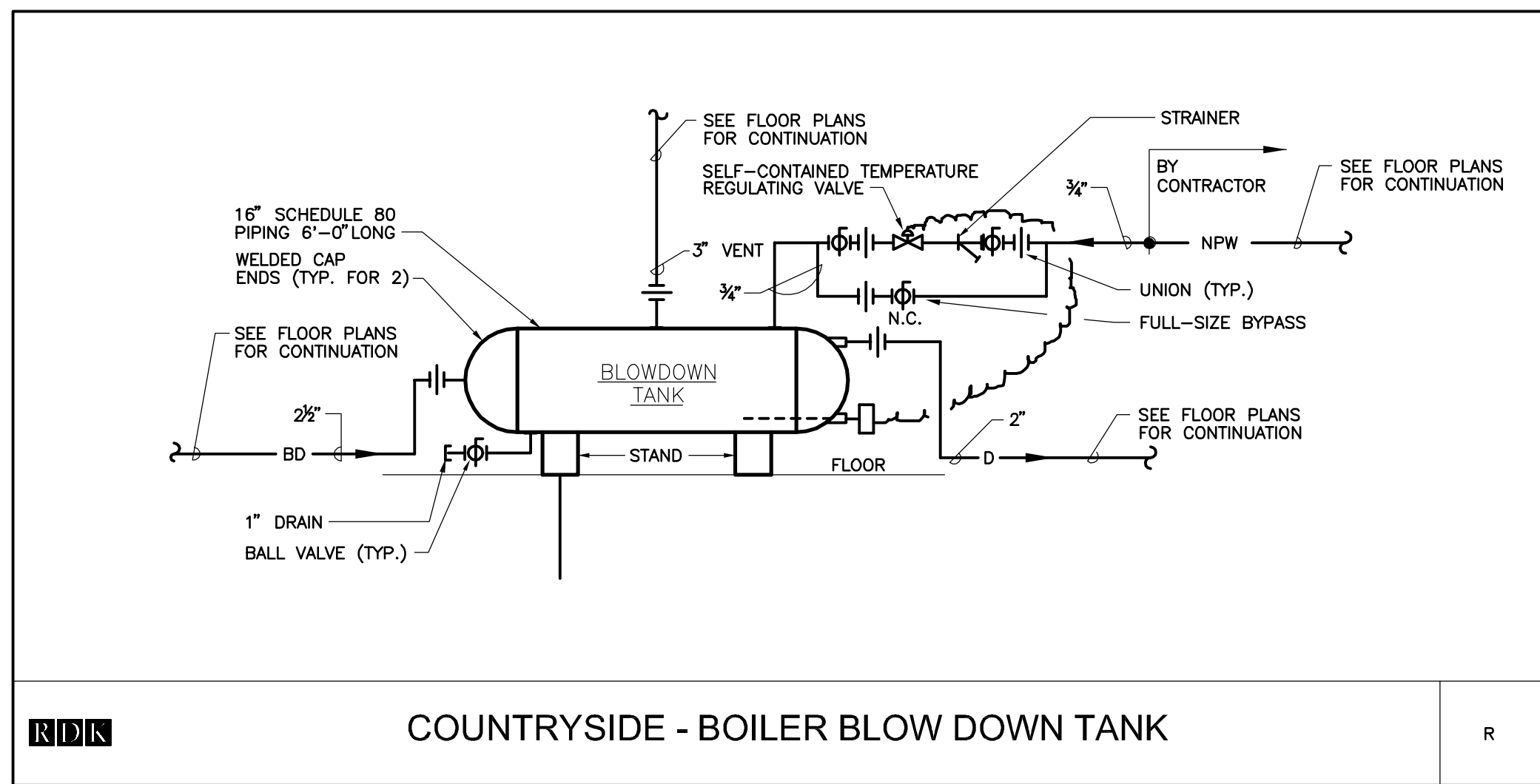
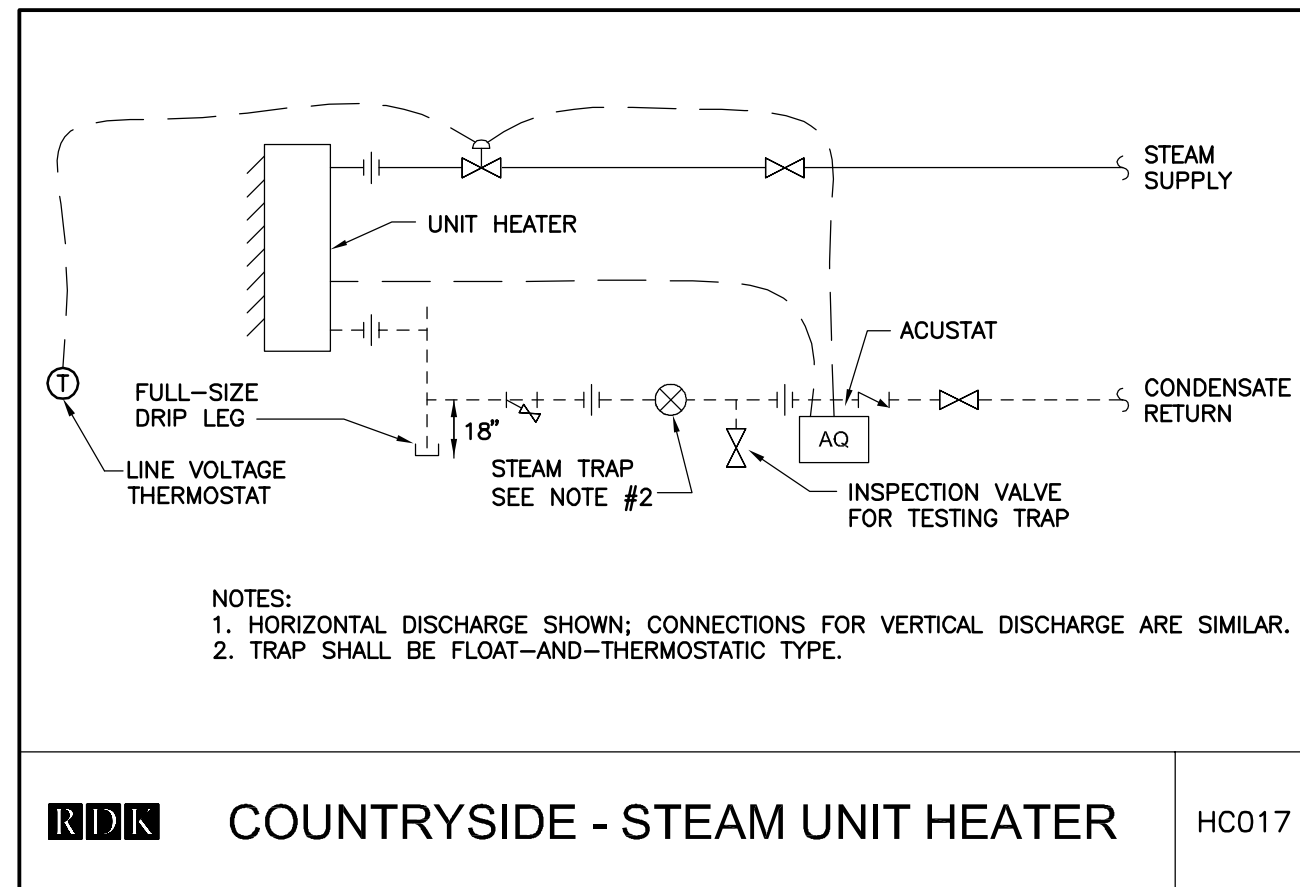
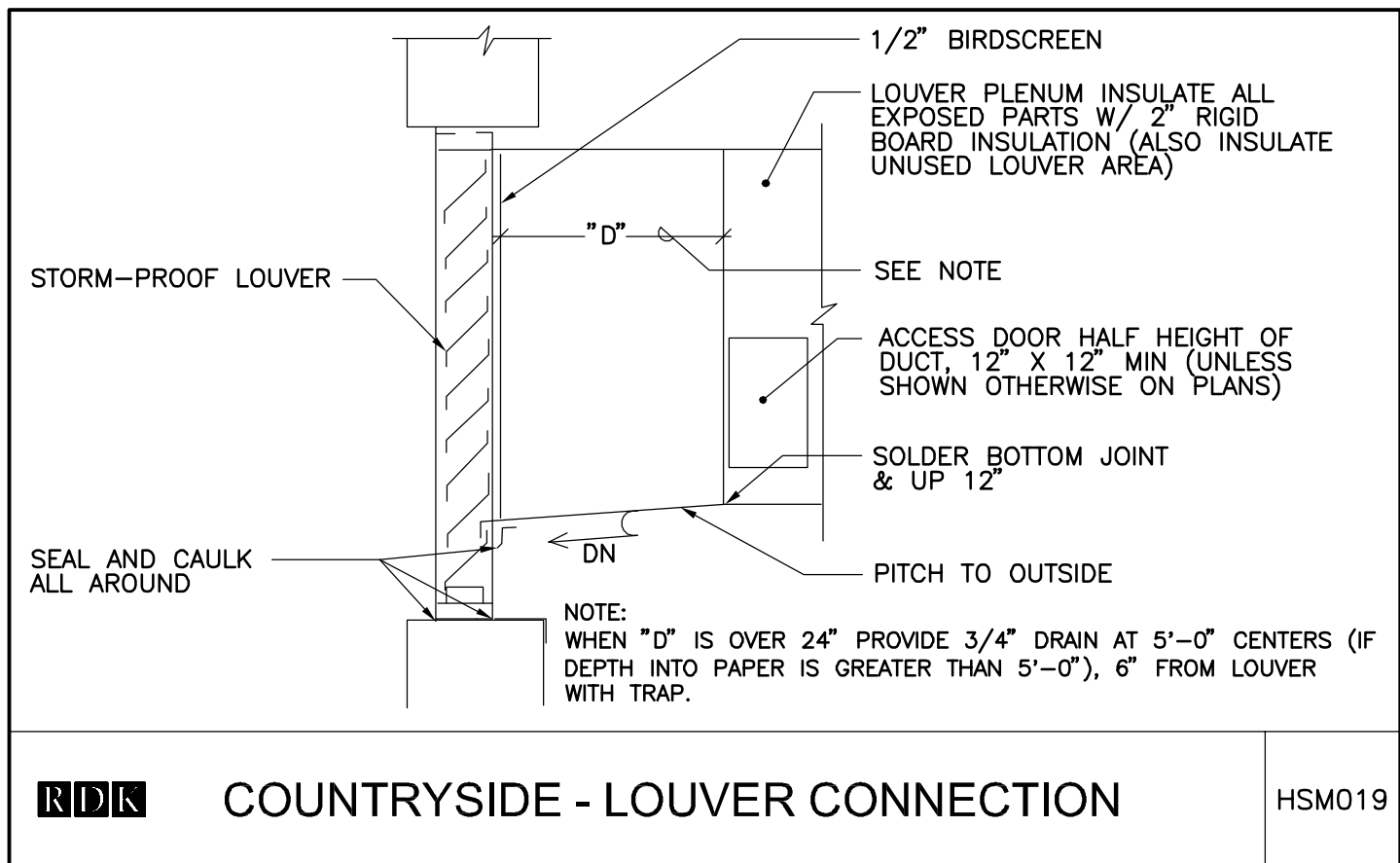
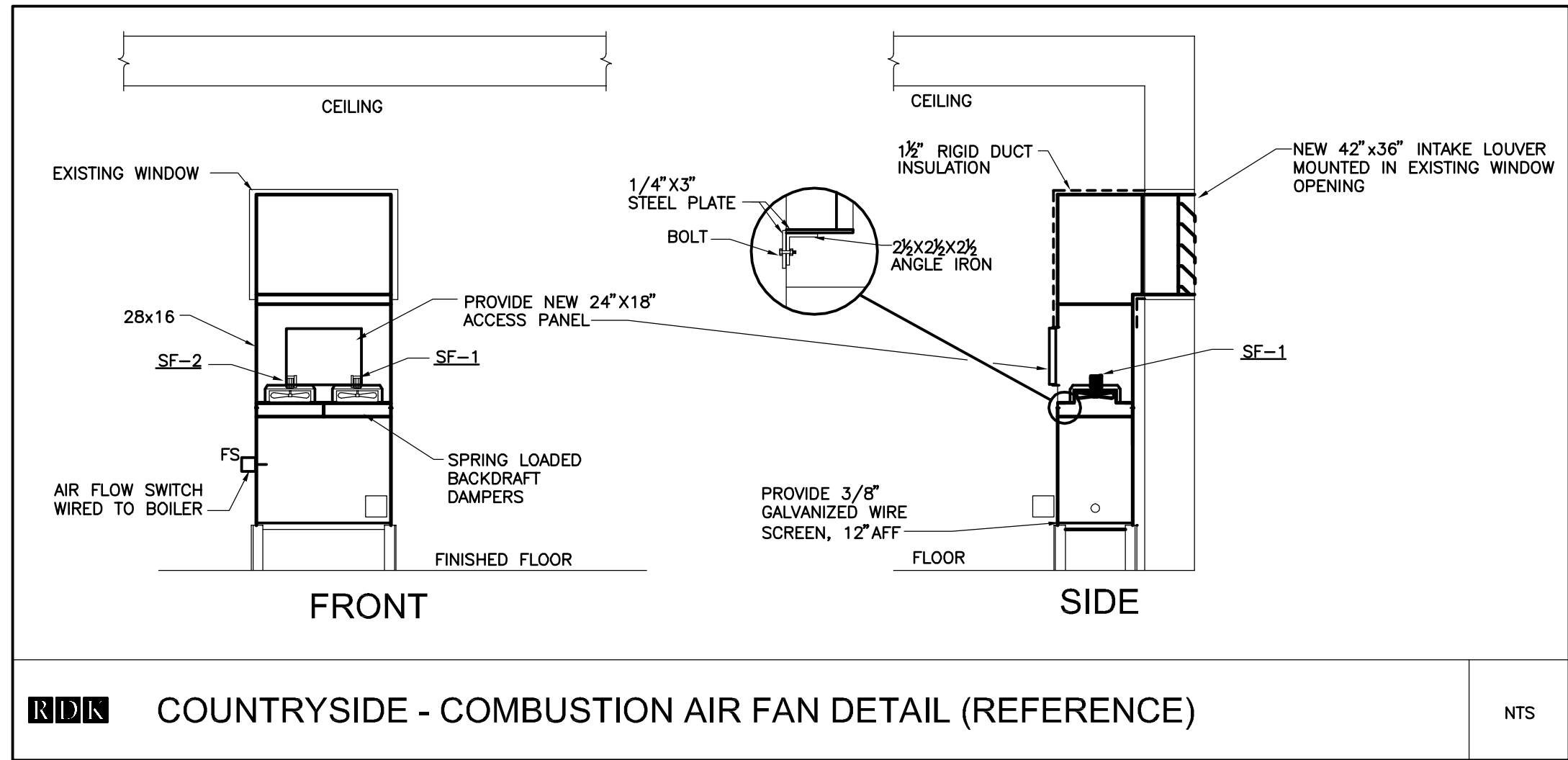
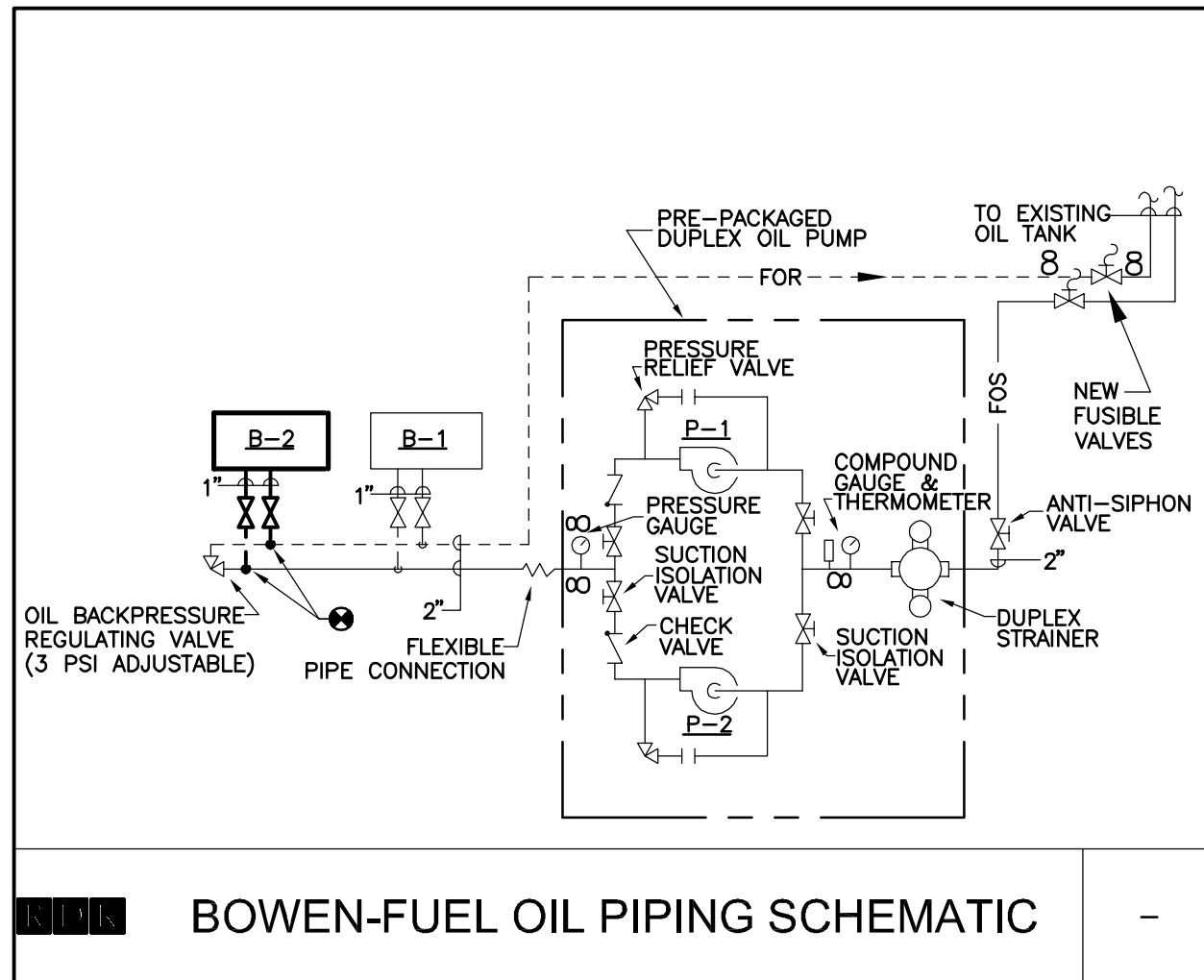
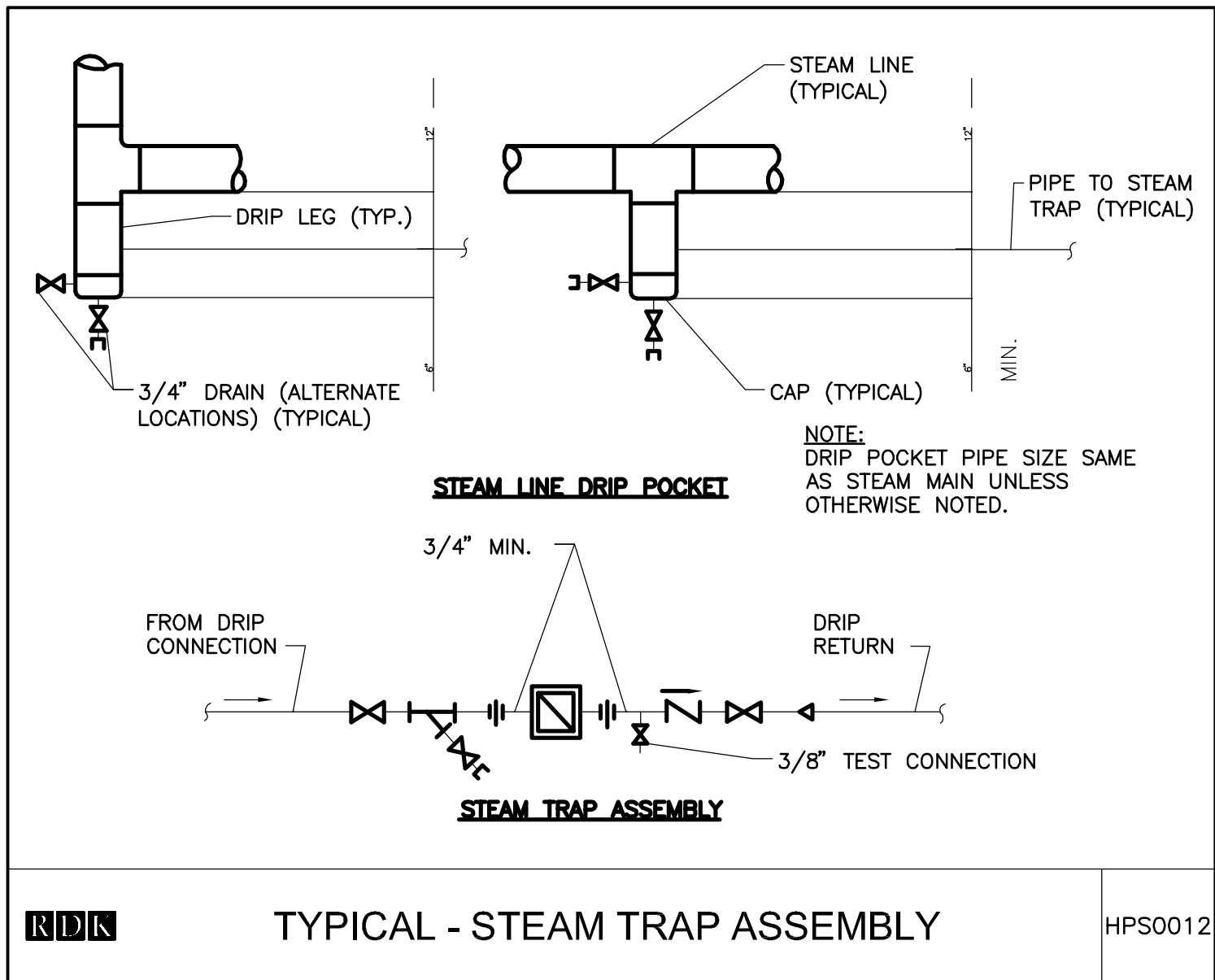
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SCALE NONE

MECHANICAL  
BOILER ROOM  
PIPING SCHEMATIC  
DETAILS AND CONTROLS

M7.01



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09-02-2011



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SEAL

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20110321

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09-02-11

NEWTON PUBLIC SCHOOLS

BOWEN/COUNTRYSIDE ELEMENTARY SCHOOL

BOILER RENOVATION

NEWTON, MA 02459

DRAWING

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SCALE

NONE

MECHANICAL SCHEDULES

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09-02-2011

M8.00

COUNTRYSIDE - UNIT HEATER SCHEDULE (STEAM)													
TAG	LOCATION	TYPE	OUTPUT MBH	CFM	AIR		LAT (°F)	RPM	BHP	HP	MOTOR		
					EAT (°F)						ELECTRIC SERVICE	MANUFACTURER AND MODEL NUMBER (AS STANDARD)	REMARKS
											HZ	V	PH
UH-1	BOILER ROOM	STEAM	86	500	60	115	1050	-	1/10	60	115	1	
NOTES: 1. PROVIDE WITH LINE VOLTAGE THERMOSTAT, CONTROL VALVE, ACUASTAT													

COUNTRYSIDE - FAN SCHEDULE																
TAG	SERVICE	LOCATION	CFM	FAN TYPE	E.S.P. (IN.WG)	WHEEL		DRIVE	OUTLET VELOCITY (FPM)	MOTOR					MANUFACTURER AND MODEL NUMBER (AS STANDARD)	REMARKS
						DIA. (IN.)	TYPE			RPM	BHP	HP	V	PH		
SF-1	COMB. AIR	BOILER ROOM	950	PROPELLER	0.25	16"	PROP.	DIRECT	293	1140	0.15	1/6	115	1	COOK SWD - 16A11DA	1
SF-2	COMB. AIR	BOILER ROOM	950	PROPELLER	0.25	16"	PROP.	DIRECT	293	1140	0.15	1/6	115	1	COOK SWD - 16A11DA	2
NOTES:																
1. INTERLOCK WITH BOILER NO. 1																
2. INTERLOCK WITH BOILER NO. 2																

COUNTRYSIDE - AIR LOUVER SCHEDULE									
DESIGNATION	AREA SERVED	MANUFACTURER & PART NO.	LOUVER DEPTH	EXISTING OPENING SIZE	MINIMUM FREE AREA	FREE AREA PROVIDED	MAXIMUM VELOCITY	MAXIMUM PRESSURE DROP (IN INCHES W.G.)	REMARKS
L-1	BOILER ROOM COMBUSTION AIR INTAKE	RUSKIN--ELF375X STATIONARY LOUVER	4"	42" X36"	-	-	500 FPM	0.07	PROVIDE W/ BAKED ENAMEL FINISH MATCH BUILDING COLOR; COORDINATE W/OWNER AND INSECT SCREEN

COUNTRYSIDE - BOILER SCHEDULE																
TAG	LOCATION	OUTPUT CAPACITY (GROSS I=B+R)		OUTPUT STEAM (LB./HR)	STEAM PSIG	BREECHING		FIRING RATE 	FUEL INLET PRESSURE GAS/OIL (IN.WG)/(PSIG)	BURNER				MANUFACTURER AND MODEL NUMBER (AS STANDARD)	REMARKS	
		MBH	HP			*F	CFM				TYPE	TURN MODEL	BLOWER			
												HP	V	PH		
B-1	BOILER ROOM	2232	67	2312	15	—	2,400		3.5		GAS POWERFLAME	1-1/2	208	3	H.B. SMITH — 28A-S-9	EXISTING TO REMAIN
B-2	BOILER ROOM	2232	67	2312	15	—	2,400		3.5		GAS POWERFLAME	1-1/2	208	3	H.B. SMITH — 28A-S-9	NEW
NOTES: 1. PROVIDE WITH MODULATING BURNER 2. PROVIDE WITH SINGLE POINT POWER CONNECTION 3. GAS TRAIN SHALL BE SIZED FOR 4"W.C. GAS PRESSURE INLET																

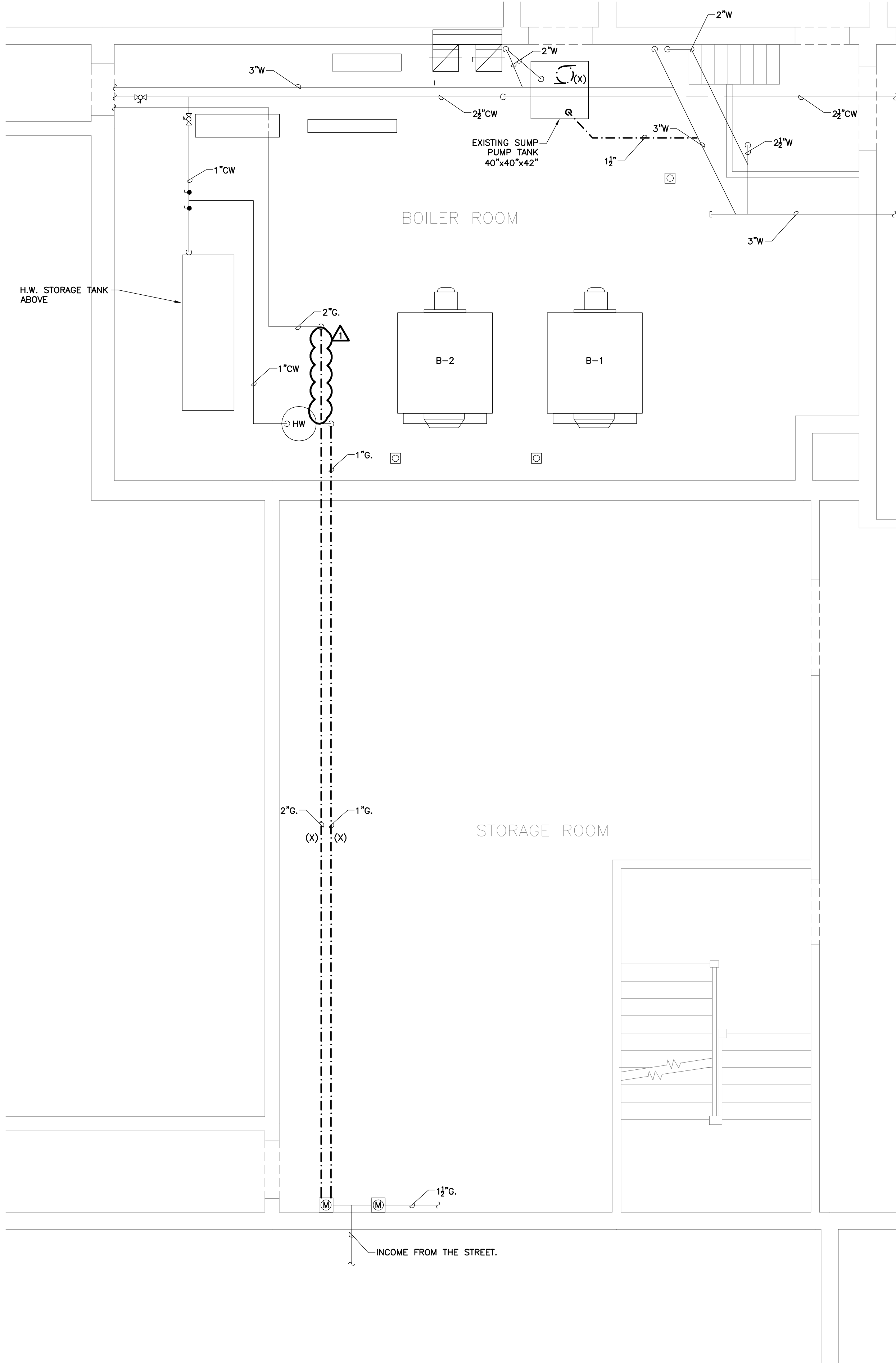
BOWEN – BOILER SCHEDULE (STEAM)																					
TAG	LOCATION	OUTPUT CAPACITY (GROSS I=B+R)		OUTPUT STEAM (LB./HR)	STEAM PSIG	BREECHING		FIRING RATE OIL (GPH)	FUEL INLET PRESSURE OIL (PSIG)	BURNER				INDUCED DRAFT FAN				MANUFACTURER AND MODEL NUMBER (AS STANDARD)	REMARKS		
		MBH	HP			T°F	CFM			TYPE	TURN MODEL	BLOWER		CFM	TYPE	HP	VOLTS			PH	
B-1	BOILER ROOM	3.853	115	4,313	15	—	2,400	38	25	OIL	LC DL-54	3	208	3	2,400	AUBURN #16B75	1	208	3	H.B. SMITH — MILLS 4500A-S-12 SECTION	EXISTING
B-2	BOILER ROOM	3.853	115	4,313	15	—	2,400	38	25	OIL	LC DL-54	3	208	3	2,400	AUBURN #16B75	1	208	3	H.B. SMITH — MILLS 4500A-S-12 SECTION	NEW
NOTES:																					
1. PROVIDE WITH MODULATING BURNER																					
2. PROVIDE WITH DRAFT CONTROL SYSTEM																					
3. PROVIDE WITH REMOTE CONTROL PANEL AND SINGLE POINT POWER CONNECTION																					

LOCATION	TAG	LOCATION	OUTPUT CAPACITY (GROSS I=B+R)		FIRING RATE	GAS (CFH)	GAS (IN.WG)	BURNER				MANUFACTURER AND MODEL NUMBER (AS STANDARD)	REMARKS
			MBH	HP				TYPE	TURN DOWN	BLOWER			
										HP	V	PH	
BOILER ROOM	B-1	BOILER ROOM	3172	67	2836		3.5	POWER FLAME C2-G0-2031	MODULATING	1-1/2	208	3	H.B. SMITH -- 28A-S-9
BOILER ROOM	B-2	BOILER ROOM	3172	67	2836		3.5	POWER FLAME C2-G0-2031	MODULATING	1-1/2	208	3	H.B. SMITH -- 28A-S-9
NOTE: 1.													

BOWEN -- BOILER FEED UNIT SCHEDULE													
TAG NO.	LOCATION	MANUFACTURER (AS STANDARD)	RECEIVER CAPACITY GALLONS (EDR)	CONDENSATE PUMP DATA				MOTOR HP	ELECTRICAL DATA			NPSH	REMARKS
				QTY	GPM	RPM	PSIG		VOLTS	PHASE	HZ		
BFU-1	MAIN BOILER ROOM	SKIDMORE MODEL VJSSM-153	110	3	17	3500	30.0	1	208	3	60	2.0	1. PROVIDE WITH UNIT MOUNTED CONTROL PANEL. 2. PROVIDE WITH MAKE-UP WATER ASSEMBLY.

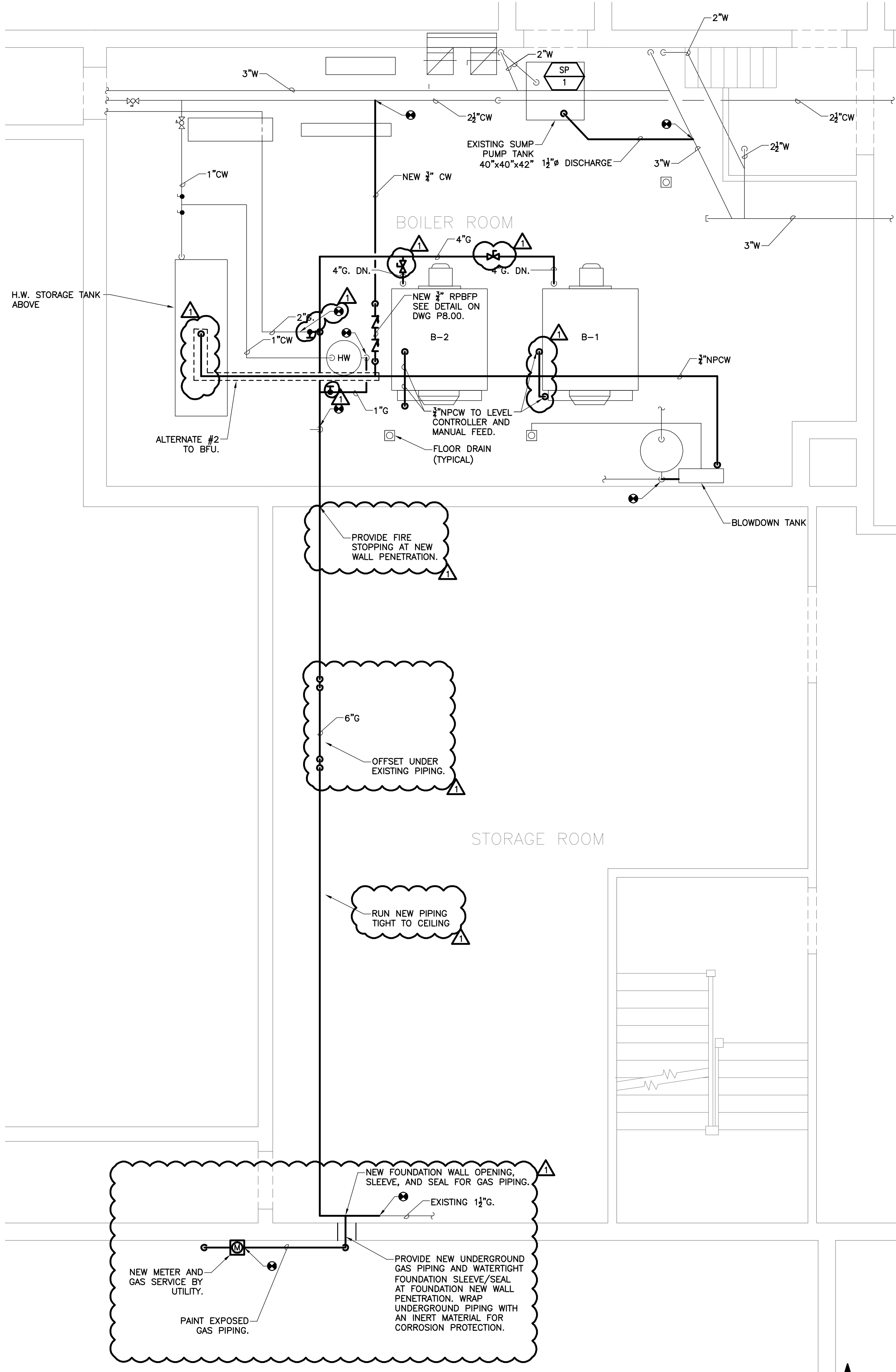
COUNTRYSIDE -- BOILER FEED UNIT SCHEDULE													
TAG NO.	LOCATION	MANUFACTURER (AS STANDARD)	RECEIVER CAPACITY GALLONS (EDR)	CONDENSATE PUMP DATA				MOTOR HP	ELECTRICAL DATA			NPSH	REMARKS
				QTY	GPM	RPM	PSIG		VOLTS	PHASE	HZ		
BFU-2	MAIN BOILER ROOM	SKIDMORE MODEL VJSSM-153	110	3	12	3500	30.0	1/2	208	3	60	2.0	1. PROVIDE WITH UNIT MOUNTED CONTROL PANEL. 2. PROVIDE WITH MAKE-UP ASSEMBLY

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PLUMBING - COUNTRYSIDE BOILER ROOM  
DEMOLITION PART PLAN

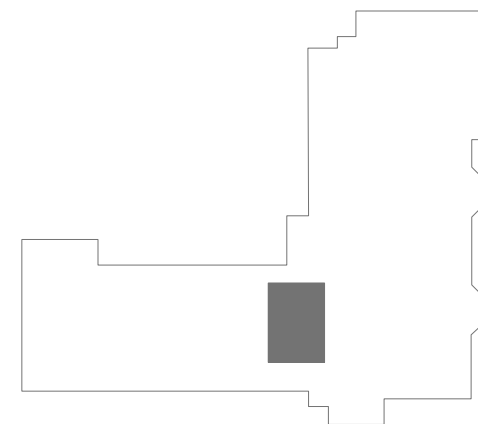
SCALE: 1/4"=1'-0"



PLUMBING - COUNTRYSIDE BOILER ROOM  
NEW WORK PART PLAN

SCALE: 1/4"=1'-0"

- NOTES:
1. PHASE NEW GAS PIPING WORK TO MINIMIZE TIE-IN.
  2. ALL TIE-IN WORK SHALL BE COMPLETED DURING UNOCCUPIED SCHOOL HOURS.
  3. COORDINATE ALL TIE-IN WORK WITH THE CITY FACILITIES DEPARTMENT AND UTILITY COMPANY.



KEYPLAN

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## SEAL

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NEWTON PUBLIC  
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BOWEN/COUNTRYSIDE  
ELEMENTARY SCHOOL  
BOILER RENOVATION  
NEWTON, MA 02459

## DRAWING

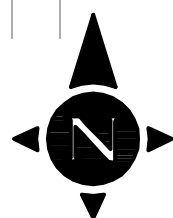
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SCALE  
AS NOTED

PLUMBING  
BOILER ROOM  
DEMOLITION AND  
NEW WORK  
PART PLAN

100% CONSTRUCTION DOCUMENTS  
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1/4" = 1' - 0"

